

FOREWARD

Two meetings of members of Provo River Distribution System Board were held during 1963, they being on Jan. 9th and Jan. 10th. At the first meeting policy was determined, resolutions made, hearings of individual water users taken. At the second meeting the State Engineer and members of his staff were in attendance. The resolutions of the previous meeting were presented to the State Engineer for action. One of the resolutions of Jan. 9th meeting was the "official minutes of the Board of Directors, and other documents of importance, be incorporated into and made a part of the Commissioner's annual reports." As a result of this resolution minutes of the meetings listed are recorded in this report beginning on page VI. These minutes show all resolutions made, and action recommended for 1963 season.

Certain pertinent and informative information and exhibits contained in the 1960, 1961, and 1962 Commissioner Reports are not included as duplications in this report but are referenced by page and report. They are as follows:

- (1) Articles of Association page VII 1960 report.
- (2) List of Water Users and Acre Rights Wasatch Division 1960 report.
- (3) Recommendations. They are substantially the same for 1964. See Page V 1962 report.
- (4) Range and observation of Wells, Heber Valley page 71, 1960 report.
- (5) Basis for computing Assessment Provo River page VI 1961 report.
- (6) Blue Cliff 50 cfs assignments tabulation page 12, 1961 report.
- (7) Tabulation of summer UP&L Co. D.C.R. storage release showing conveyance losses page VII 1961 report.

Computed Natural Flow of Provo River below D.C.R. provided 100% of Class "A" demands of decreed rights, together with large quantities of secondary water for Provo Res. Water Users Co. Geneva Steel, and others to June 24th as D.C.R. had filled June 7th and to that date quantities of River N.F. Water was by passing all Utah County diversions. Only users having no Class "A" or secondary rights were charged for D.C.R. water during that period. Class "A" rights continued at 100% to July 1st, 80% to July 30th, 70% to Aug. 20th, 80% to Sept. 1st, and 100% balance of season. The most that Class "A" over drew on its balance was 672 Ac. Ft. on July 29th. It showed a balance of +80 at end of Irrigation Season.

Wasatch division for Districts 1 and 2 provided 100% of First Class Rights to July 12th. Other percentages with comparison for other years are as follows:

1963	1962	1961	1960
To Aug. 1st 60%	83%	31%	55%
To Sept. 1st 57%	58%	36%	36%
To Oct. 1st 91%	51%	68%	36%
No % regulation after Oct. 1st of each year.			

The total Natural Flow (226,455 Ac. Ft. Utah Valley) for the water year Nov. 1, 1962 to Oct. 31, 1963 equaled 71% of that for the previous year. The irrigation season N.F. April 1, to Oct. 31, 1963 equaled 64% of that for 1962 season, 210% of that for 1961 and 79% of that for 1958 a near normal year. 1963 Irrigation Season N.F. controlled again largely by temperatures, developed almost perfectly during the entire season.

Barly runoff forecasts furnished by government agencies and incorporated in the 1962 report proved decidedly premature and inaccurate as a 1963 water year prediction. As a result of such prediction extreme measures were planned by many in the state, many of which proved beneficial. What really

happened the water year high elevation snow cover came in April shortly before the irrigation season started.

All fourteen lakes comprising head of Provo River storage filled to their allowable capacity except Washington and Big Elk for a total of 10247 Ac. Ft. as shown on page 46 .

Repairs to out let and free board facilities were again carried out on Trial, Washington, and Lost Lakes as per agreement, by the respective owners in cooperation with the Forest Service.

Duchesne Tunnel diversion accounted for 36,657 Acre Feet of Deer Creek storage after a deduction of a 4% empirical formula conveyance loss to that point on the river. This was 185% of that provided to D.C.R. from Duchesne Tunnel in 1961 Water year, a comparatively dry year.

Weber - Provo Canal delivered 48,025 acre feet to Provo River during the water year. From this amount 40,705 acre feet became credited to D.C.R. storage, 2,303 went to Echo storage users. The balance was N.F. and conveyance loss deductions. In excess of 6,400 A.F. of Echo Storage was brought over all of which spilled from D.C.R. except the 2,303 delivered to users after June 24th. Only 1916 acre feet of Head of River storage after losses was used in Utah and Salt Lake Counties through the Murdock Canal. Little #9580 P.R.W.U. Co. water was required or available when needed from Weber River during the water year. Deer Creek Res. officially filled on June 7 and remained filled to June 24th with a capacity in excess of 154,000 A.F. The last time it filled was on June 19th, 1962. Previous to that was June 6, 1958.

The value of D.C.R. as a flood control facility was realized during the February floods in Heber Valley. Computed Natural Flow for Provo River, Utah Valley was 3369 cfs for Feb. 1st 1963 (See sheet #4 Report #3.) Should a stream of that magnitude have come down Provo Canyon and through Utah Valley with Provo River present flood control facilities considerable damages could have been expected.

All temporary change application filled during 1963 had to do with municipal purposes. Provo River Water Commissioner has imposed no restriction to the use of Natural Flow winter water for municipal purposes, as the decree provides for such winter water use and no abandonment has ever been shown.

Regulation was again necessary on South Fork, Utah County and Deer Creek Wasatch County to hold those Class "A" users to the same percentages required of other Class "A" users diverting below D.C.R. The 1962 turn schedules were again applied to users diverting from these streams. Revision in some of these schedules are anticipated for 1964. This has and will come about as a result of discussion and development from a meeting called and held July 25, 1963 under the direction of the State Engineer's office with users from South Fork at Utah County Court House. One point of anticipated schedule revision is that users be allowed any amount of water desired for continuous flow culinary and stock watering purposes, up to the amount of their acres right; this to be deducted from their total decreed right when integrating the balance of their right into an irrigation turn schedule. Written detailed recommendations on completion of control and measuring devices for South Fork users, together with a new operating schedule plan will be shortly forth-coming as requested. A satisfactory turn schedule with the use of new control and measuring devices was worked out for the lessees of the Hoover Ranch diverting water from Deer Creek stream in Wasatch County. After their 1.93 cfs. high water right under

app #2623 and #2624 ran out, their .17 cfs. Class "A" right was intergrated with a 50 A.F. used right for eight 48 hr. tur with a 2 cfs. diversion.

One 1963 step forward in River Control, distribution analysis and water right record keeping covers particularly the river reach between the Midway diversion at the Highway Bridge and D.C.R. Several years ago and since the construction of D.C.R. and many Association river facilities a control and measuring devise was installed at Midway Bridge to insure a record and delivery of all foreign water to that point on the river. This 2½ mile reach of the river comprises District #3 of the Wasatch division.

Over the past 41 years of Deputy Ike Baum distribution to that District from natural and return flow a 60 acre duty to users on that reach has been awarded and granted, based on his interpretation of the following paragraphs in the Decree Case #2888.

General Provisions Concerning Rights and Administration,
Third District of the Wasatch Division,

Page 73 Paragraph 121 (d)

That the First Class in the Third District of the Wasatch Division, shall receive their whole quantity in such class, as herein before stated, before the rights in the Provo Division.

(e) That the defendants hereto, in the Provo Division, shall receive one second foot of water per Seventy Acres of Land, before the seventeenth class in the Third District of the Wasatch Division.

(f) That in the period from May 1st to May 15th in any year, the defendants in the Provo Division and the First Class Rights of the Third District of the Wasatch Division, shall receive their whole quantity, as herein before stated, and the Plaintiff shall receive one second foot of water per Seventy acres of Land, before the Seventeenth class of the first and second districts of the Wasatch Division.

With the instillation of controls and measuring devices this 60 acre duty from N. F. can now be better held and regulated. Limited observations are that there is generally sufficient N.F. and return Flow water in this reach to furnish this duty to acres decreed, thereby providing for by passing of all foreign water.

A present list of diversions with decree acres right and users is furnished by the Deputy, and made a part of this report. See page 56 .

At the meeting held July 25, 1963 with Riverside Country Club and State Engineer's office representatives it was determined it was the responsibility of officials of the Club to provide and furnish evidence of water rights claimed together with initiating change of point of diversion and place of use applications to facilitate their present method of golf course irrigation. A determination of the adequacy of their water rights acquired to irrigate the acreage developed, can only be resolved after the following facts are established.

- (1) Acres water right acquired as listed in the Decree Case #2888.
- (2) Acres now irrigated and developed by the Club.
- (3) Drain Water developed for pumping or retrun flow to the river.
- (4) Measured discharge capacity of existing pumping facilities.

Should it be determined the Club does not have sufficient water rights to cover the acreage developed and water diverted, then acquisition of additional storage or other water rights may be the answer. All these conditions are to be substantially resolved before water is to be diverted next spring for golf course irrigation.

As note in # this Foreward 1964 operational recommendations are substantially the same as listed in 1962 report. These recommendations deal with the points of later tertiary storage releases and full utilization of D.C.R. capacity use with Class "A" water, to the end that all parties can receive substantial benefit. Such operational practices can only be carried out when a early forecast of untutilized reservoir capacity is available. It is predicted that with time and short year storage water availabilities that such will become common practice.

SEASONAL CHANGES IN PROVO RIVER RIGHTS AND METHODS OF COMPUTATION

Filing #1902 for 7.9 cfs and filing #1903 for 1.43 cfs went into effect in April 1957 by Supreme Court Order. This provides that water rights arising and credit to lands of D.C.R. Lands area shall be honored and credited to D.C.R. beginning April 15. See State Engineer's letter of April 17th 1957.

Bases on early Spring irrigation demands as determined by the commissioner UP&L Co. shall be cut to their 229 cfs. right, together with other additions and subtractions provided. Early Irrigation demands, also determines the first use of the 2.52 cfs. Class "A" water leased by Provo City from Tanner Interests as awarded on Page 26 Par. 28 of decree to Dixon, with change App a-1171.

Filing #9580 as provided by contract and stipulation becomes effective May 1st to Aug. 1st of each year, for use of surplus water (210 cfs. Maximum) of Weber River through Weber-Provo Canal to bring Natural Flow of Provo River below confluence of South Fork near Vivian Park to 510 cfs, after which Echo Storage and Power water deliveries take over Weber-Provo carrying rights. See letter of May 2nd 1961 awarding #9580 rights to PRMU Co. and Ext. Irr. Co. No appeal has been made from State Engineers decision of May 2nd.

Provo Reservoir Water Users Co, Wright Estate Right involving and including Round Valley purchased right, to the extent of 3 cfs. becomes fully effective June 20th of each year. It takes the same % cuts as Utah Valley N.F. during irrigation season but is credited generally to that company in the Murdock Canal the same as available Shingle Creek Water to the limit of 50 cfs. under cert. #2370.

All Storage water diverted below UP&L Co. tailrace may be used by the Company, also all N.F. water not used beneficially by diversion in Utah County may be used by the Power Company though their flume to the extent of it's capacity.

A power differential is paid the UP&L Co. by PRMU Co. on all N.F. water diverted into the Murdock Canal, the exceptions being when the flume is to capacity or for measurable return flow below flume diversion not other wise required or demanded by rights above the tail race.

As a general rule no N.F. Blue Cliff power differential water is charged or listed in Murdock if there is any Secondary Water Available.

Orem City pays a power differential on all N.F. Water they divert through the S.L. Aqueduct. The Daily Ac. Ft. amounts are shown on a seperate schedule in annual reports for each water year. Provo City also pays a power differential on all N.F. water diverted from So. Fork and Provo River above flume intake, not covered by storage, the 2.52 cfs awarded on Page 26, Par. 28 of decree, or other consumptive use class "A" rights acquired and originating in South Fork. (See letter of March 30th 1961 and April 29th 1961 from and to State Engineers Office.)

There are several situations requiring different methods for determining UP&L Co. flume right.

No. 1, during Irr. Season when N.F. is below Power Co. 458 A.F. right, add Ontorio, storage in flume, and subtract other Utah Valley N.F. uses not in flume to find flume right. During non-Irr. Season Ontorio UP&L Co. water is not added, however, Orem & Provo City N.F. culinary and other N.F. uses are subtracted as a power differential is charged for some N.F. uses not other wise covered.

No. 2, When N.F. is above Power Co. 458 A.F. right, then this surplus to the extent of any amount above prior right demands but not to exceed 400 A.F. covered by Cert. #1125, is added, before subtracting other Utah Valley N.F. Class "A" uses not in flume, to find flume right. Prior right demands are generally the 331 A.F. PRWU Co. secondary right.

No. 3, During Irr. Season and when Class "A" water is on a River N.F. percentage all water diverted through the flume is either storage, Ontorio or N.F. Class "A" prior irrigation right use, superior to any power right; hence this Class "A" irrigation right governs and there is no point in computing a flume right. Any plus or minus amounts found between Class "A" right and Class "A" use becomes either a debit or credit to Class "A" balances.

For the Water history record a major tragedy occurred with-in the Water Shed area serving Provo River Users during 1963. The breaking of Little Deer Creek Reservoir Dam in Wasatch County near the intake end of Duchesne Tunnel on June 15th spelled disaster to the hopes of the Water Users of Kansas Valley for the now much needed additional Storage Water. The break occurred to the newly constructed earth filled dam during the night of June 15th and 16th when the Water elevation of the Reservoir was some 8 feet below the spillway lip crest flow line level, at about elevation 9226. The Reservoir with a total available storage capacity of 1400 A.F. had reached about the 1135 A.F. level at time of break. Investigations are still under way to determine basic causes of the failure and if there are responsible engineering construction omissions.

Only time will tell
fall upon the Water Users
Utah, the Federal Government
breaks flood waters.



Water 12' 9" from spillway lip. June 16th